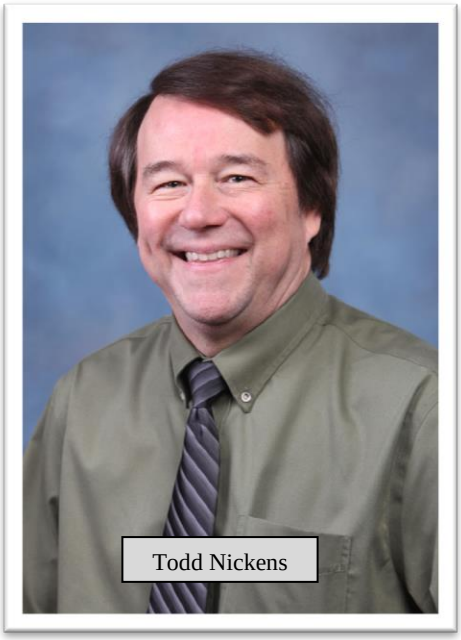
Kentucky Automotive Technology Curriculum Model Adopted by 17 States

Over the last few years, perhaps no other industry has advanced technologically as much as the automotive field. Today's vehicles are literally a series of computers and electronic devices nestled under a chassis made of high-tech, space-age materials – a far cry from the first Model T's that rolled off of Detroit's assembly lines more than a century ago.


Todd Nickens

Because of those advancements, teachers in automotive technology (AT) classes must keep up with industry changes to keep their students viable in the postsecondary education and job markets.

Todd Nickens, AT consultant with the Office of Career and Technical Education, is in charge of making sure those changes are written into the state curriculum being used in the classroom.

Nickens said changes to industry standards initiated by the Automotive Standards of Excellence (ASE) organization come along every few years for AT, auto body repair and diesel technology sectors. These changes must be implemented into the classroom to make sure students get the most up-to-date information available in making them college- and career-ready.

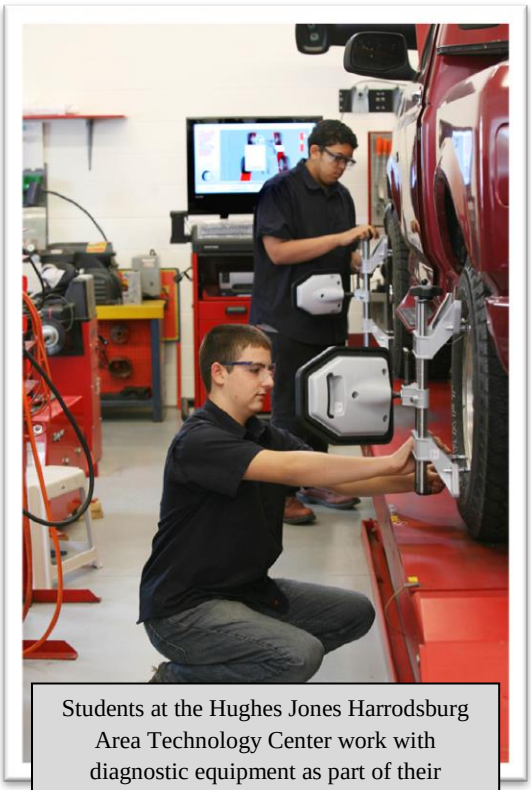
ASE is considered the industry-standard benchmark for automotive technicians in the U.S.

Last year, AT standards saw such an update. In writing the changes into curriculums, Nickens said the ASE and National Automotive Technicians Education Foundation (NATEF) wanted to see a broader range of information being taught to give students more knowledge in more AT areas, thus making them more marketable.

"Right now, students, at the high school level, can become industry certified in several different areas using the curriculum being taught in our tech schools," he said. "I started last year, November of 2012, in getting the new AT updates integrated into the curriculum to have it ready to go for this school year."

Upon seeing the new standards last year, Nickens said he knew they were radically different than the previous eight certification areas broken down into 11 classes. This time, those eight areas

were concentrated into three to concentrate on beginning, intermediate and advanced levels and presenting a broader range of tasks in each AT area, which employers are looking for.



Students at the Hughes Jones Harrodsburg Area Technology Center work with diagnostic equipment as part of their classroom activities.

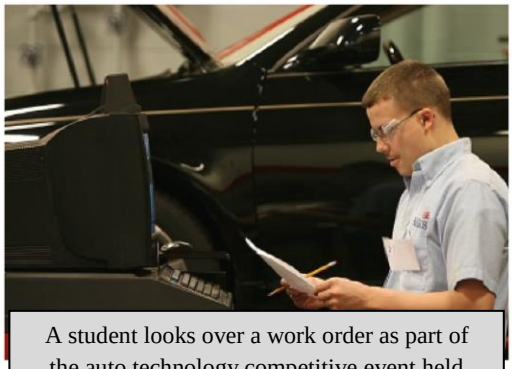
Incorporating that information into the existing curriculum entailed curriculum maps, progress and competency sheets, and lesson plans being updated.

In implementing the changes, Nickens also had to keep in mind the different yearly schedules at each of the schools and make the curriculum work for all of the schedules.

The plan was so good, it caught the eyes of the ASE/NATEF, with whom Nickens works closely. At last count 17 other states have used Nickens' plans for their related AT programs.

Associate Commissioner Dale Winkler said other states emulating the work being done in Kentucky shows the state is becoming a leader in CTE.

"This proves how valuable our academic consultants are in working with our CTE teachers across the state, and it shows how our efforts to elevate CTE are paying off," he said. "What our consultants are doing curriculum-wise is beginning to be recognized on a national basis, and that is exciting for us."



A student looks over a work order as part of the auto technology competitive event held during the SkillsUSA State Conference.

Tom Richardson, vice-president of Government Affairs with the National Institute for ASE, praised Nickens for his work and his relationship with the ASE organization.

"Todd has been a key resource nationally to both ASE and NATEF in developing the new NATEF Automotive Standards Model," he said. "The curriculum he developed for Kentucky has been incorporated and used as a template for many other states as this new model is implemented nationally. We appreciate his willingness to serve on national workshops and his help assisting other states."

ASE program certification is based on NATEF recommendations. This non-profit organization examines the structure and resources of training programs and evaluates them against nationally-accepted standards of quality.

Having the AT classrooms ASE-certified not only gives students an added educational advantage, it demonstrates to industry partners the level of performance these students will obtain, Nickens said.